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unit, in particular a transmission signal in a radio station, which has the following steps:

- a) production of an internal actual transmission time signal (203) in the transmitting/receiving unit,
5 containing information about the actual transmission time,
- b) comparison of the internal actual transmission time signal (203) with an external nominal transmission time signal (101) which is received
10 from the transmitting/receiving unit and which contains information about a nominal transmission time,
- c) production of a difference signal (102) in the transmitting/receiving unit, which contains
15 information about the discrepancy (T_{diff}) between the two transmission times,

characterized in that

- the actual transmission time is corrected in the transmitting/receiving unit such that the discrepancy
20 (T_{diff}) between the two transmission times, contained in the difference signal (102), is minimized, the correction is carried out independently of the defined clock period of the basic radio system, and the time period for the correction is set variably therein.

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10. The method as claimed in claim 9,
characterized in that
the time duration of the correction is set by the value
of the conversion ratio of a fractional sampling rate
30 converter unit 2 and of the time duration for which this conversion ratio is activated.

11. The method as claimed in one of claims 9 or 10,
characterized in that
35 the discrepancy of (T_{diff}) between the transmission

times is minimized such that an input data signal (204) is compressed or extended in time.

12. The method as claimed in claim 11,
5 characterized in that

the input data signal (204) is compressed or stretched by reducing or increasing the conversion ratio of the fractional sampling rate converter unit (2).

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13. The method as claimed in claim 12, characterized in that

a correction signal (103) is applied to the fractional sampling rate converter unit (2) and is used to change the conversion ratio such that the conversion ratio is set either to a value which is predetermined and fixed for a steady-state system, or to a value which corresponds to extension or compression of the transmission signal (204).

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14. The method as claimed in claim 13, characterized in that

the correction signal (103) contains as information the value to which the conversion ratio is changed, the time period for which the changed conversion ratio is used, and the time at which the changed conversion ratio is activated.

15. The method as claimed in claim 14, characterized in that,

after undershooting a threshold value for the time discrepancy (T_{diff}) determined between the two transmission times, the correction signal (103) is deactivated, and the conversion ratio is set to the value defined for the steady state.

16. The method as claimed in one of claims 11 to 15, characterized in that the input data signal (204) is compressed or stretched such that no information is removed from or added to the input data signal (204).

17. The method as claimed in one of claims 9 to 16,
characterized in that
the actual transmission time is corrected over various
5 clock domains of the transmitting/receiving unit, which
have different or identical clock durations, and the
external nominal transmission time signal (101) is
generated in a clock domain which is different to the
clock domain which is clocked by the working clock
10 (202), and which is not necessarily in synchronism with
this clock domain.

18. The method as claimed in claim 17,
characterized in that
15 the sampling rate converter unit 2 produces a control
signal (201) by means of which the working clock (202)
in the transmitting/receiving unit is controlled, in
particular a signal processing unit (3) which produces
the input data signal (204).

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19. The method as claimed in one of claims 9 to 18,
characterized in that
the edges of a working clock signal (202) are counted
by means of a counter unit 4 in order to determine the
25 actual transmission time.

20. The method as claimed in claim 19,
characterized in that
the actual transmission time signal (203) is produced
30 by the counter unit (4), and the count of the counter
unit (4) is determined as the actual transmission time.

21. The method as claimed in one of claims 19 or 20,
characterized in that
35 the counter unit (6) is reset periodically and, in
particular, is reset when the transmitting/receiving
unit is in the steady state, with the period duration
of the nominal transmission time signal (101).

22. The method as claimed in one of claims 9 to 21,
characterized in that
the transmitting/receiving unit is a mobile station,
5 and supports a mobile radio standard, in particular the
UMTS or GSM.